

**CLAIMS:**

1. A device comprising:
  - a valve to receive a pressurized coolant at a first temperature and to discharge a depressurized gaseous coolant at a second temperature;
  - a plenum to receive the depressurized gaseous coolant and to combine the depressurized gaseous coolant with air at a third temperature; and
  - a garment for placing in contact with a body of a patient to circulate the combined gaseous coolant and air proximate to the body of the patient.
2. The device of claim 1, in which the coolant comprises at least one of oxygen, nitrogen, air and carbon dioxide.
3. The device of claim 1, in which the pressurized coolant comprises a pressurized liquid gas.
4. The device of claim 1, further comprising a coolant supply to store the pressurized coolant and a supply conduit to transport the pressurized coolant to the valve.
5. The device of claim 1, in which the valve is disposed less than two meters from the garment.
6. The device of claim 1, further comprising a coolant delivery conduit to convey the combined gaseous coolant and air from the plenum to the garment.
7. The device of claim 1, further comprising:
  - an air intake port; and
  - an air intake valve to control passage of air through the air intake port and into the plenum.

8. The device of claim 1, further comprising a sensor to sense a temperature in the plenum.
9. The device of claim 1, further comprising a motor, in which the discharge of the depressurized gaseous coolant from the valve drives the motor.
10. The device of claim 1, further comprising an air-moving device to move at least one of the depressurized gaseous coolant and the air.
11. A system comprising:
  - a valve to receive a pressurized coolant at a first temperature and to discharge a depressurized gaseous coolant at a second temperature;
  - a plenum to receive the depressurized gaseous coolant and to combine the depressurized gaseous coolant with air at a third temperature; and
  - a controller to control the valve as a function of a signal from a temperature sensor.
12. The system of claim 11, in which the temperature sensor is disposed in the plenum.
13. The system of claim 11, further comprising a garment for placing in contact with a body of a patient to circulate the combined gaseous coolant and air proximate to the body of the patient.
14. The system of claim 13, in which the temperature sensor is disposed in the garment.
15. The system of claim 13, in which the valve is disposed less than two meters from the garment.
16. The system of claim 11, further comprising an input device, in which the controller receives commands from an operator via the input device.

17. The system of claim 11, further comprising a coolant supply to supply the pressurized coolant to the valve.
18. The system of claim 17, further comprising a supply conduit to transport the pressurized coolant from the coolant supply to the valve.
19. The system of claim 11, further comprising a motor, in which the discharge of the depressurized gaseous coolant from the valve drives the motor.
20. The system of claim 11, in which the coolant comprises at least one of oxygen, nitrogen, air and carbon dioxide.
21. The system of claim 11, in which the pressurized coolant comprises a pressurized liquid gas.
22. The system of claim 11, further comprising:  
an air intake port; and  
an air intake valve to control passage of air through the air intake port and into the plenum.
23. The system of claim 22, in which the controller controls the air intake valve as a function of a signal from the temperature sensor.
24. The system of claim 11, further comprising a second sensor, in which the controller controls the valve as a function of a signal from the second sensor.
25. The system of claim 24, in which the second sensor comprises at least one of an oxygen saturation sensor, a blood flow sensor, a heart rate sensor, a respiration sensor and an electrocardiogram sensor.
26. A method comprising:

receiving a pressurized coolant at a first temperature;  
expanding the pressurized coolant to generate a depressurized gaseous coolant at a second temperature; and  
delivering the depressurized gaseous coolant to a patient.

27. The method of claim 26, further comprising:  
measuring a temperature; and  
controlling the expansion of the pressurized coolant as a function of the temperature.
28. The method of claim 27, in which the temperature is measured proximate to the patient.
29. The method of claim 26, further comprising mixing the depressurized gaseous coolant with air.
30. The method of claim 29, further comprising:  
measuring a temperature; and  
controlling the mixing of the depressurized gaseous coolant with the air as a function of the temperature.